OPP2004-0159

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To: opp-docket@epamail.epa.gov
cc: Chris Schlect <Schlect@nwhort.org>, "Tim Smith (E-mail)" <smithtj@wsu.edu>, Margaret Rice/DC/USEPA/US@EPA, TROGERS@ars.usda.gov, "Alan Solle (E-mail)" <louie@gorge.net>,
Subject: Attention: Docket ID Number OPP-2004-0159 (Metam Sodium Risk Assessment Comments from Northwest Horticultural Council)

NORTHWEST HORTICULTURAL COUNCIL

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July 30, 2004

Margaret Rice

Chief, Reregistration Branch 2

Special Review and Reregistration Division (7508C)

Office of Pesticide Programs

US Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Dear Ms. Rice:

Thank you for the opportunity to submit additional information regarding the use of metam sodium in Pacific Northwest orchards for the management of specific orchard replant disease. This use of metam sodium was developed as an alternative to methyl bromide fumigation for the management of this disease complex. As you know, methyl bromide can no longer be used for this purpose. Attached is a copy of EPA SLN WA-970015 for AMVAC's Vapam HL Soil Fumigant that details the allowable methods of application for treating replant sites.

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As you will see upon review of the label, two application methods are allowed. Vapam HL can be applied as a broadcast treatment by injecting 56-75 gallons of the product into the sprinkler system and applying it in a minimum of I inch of water over the entire replant site. While this method has been used to treat orchard replant sites, it is not widely used due to difficulties in isolating small blocks of the irrigation system within larger orchards and the close proximity of and potential damage to inadvertently treated sections of the orchard.

The alternate and most common method of application is to use a ground boom weed sprayer and apply 56-75 gallons of Vapam HL in a 50/50 mixture with water to a four-foot band on either side of the future tree row with the orchard sprinkler system running. This eight-foot treated strip represents about 50% to 60% of the orchard floor given modern row spacings. According to a cost of production study done at Washington State University (Hinman, H., K. Williams and D. Faubion. 1998. EB1878 Estimated Capital Requirements of Establishing and Producing a High Density Fuji Apple Orchard in Eastern Washington. Department of Agricultural Economics. Cooperative Extension. Washington State University.) (http://farm-mgmt.wsu.edu/PDF-docs/treefruits/eb1878.pdf) herbicide treatment in high-density orchards (an activity functionally equivalent to this Vapam HL application) takes 30 minutes per orchard acre, resulting in about 16 orchard acres treated in an eight-hour day yielding eight to ten treated acres. However, while this method of application using metam sodium is operationally equivalent to herbicide application, users tell us that they generally expect to treat only 8 to 10 orchard acres in a day when applying metam sodium as they are applying a higher volume of liquid coupled with the difficulty of applying the product in a wet orchard. This would result in only 4-6 treated acres per day.

The use of metam sodium to manage specific orchard replant diseases was initially proposed and demonstrated by Tim Smith of Washington State University Cooperative Extension in Chelan, Douglas and Okanogan counties. Based on his experience, it is Mr. Smith's opinion that only about 1% of the orchard acreage in Washington State is treated with metam sodium in any given year. The most recent tree fruit acreage survey in Washington (http://www.nass.usda.gov/wa/wfstoc01.htm) reports that there are 256,100 acres of orchard in the state, leading to an estimate of about 2,500 acres treated with metam sodium yearly. Mr. Smith also points out that he does not expect that figure to change substantially because metam sodium use is primarily targeted for use on small units as part of relatively small orchard operations. Growers with more extensive replant treatment needs have generally moved to the use of soil injection of Telone C-17 or a similar fumigant applied by custom applicators. According to Smith, smaller growers have found that sub-surface injection of fumigants is difficult given the size of the injection equipment and the space constraints of small replant sites. Should you wish to contact Tim Smith to obtain further technical information, he can be reached at 509-667-6540 or smithtj@wsu.edu.

It is our hope that the additional information provided here will allow the agency to calculate a more refined risk assessment for orchard replant uses of metam sodium and maintain this targeted minor use for Pacific Northwest orchardists. Please feel free to contact our office should you have any additional questions or comments.

Sincerely yours,

NORTHWEST HORTICULTURAL COUNCIL

Dr. Michael J. Willett

Vice President for Scientific Affairs

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AMVAC™
AGRICULTURAL
BULLETIN

VAPAM® HL SOIL FUMIGANT

For Treatment of Specific Orchard Replant Diseases in Washington

SUPPLEMENTAL LABELING
FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF WASHINGTON

VAPAM® HL SOIL FUMIGANT
EPA REG. NO. 5481-468

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

To suppress specific orchard diseases use 56-75 gallons of VAPAM HL per treated acre. Replant sites should be pre-irrigated to approximately 70% field capacity before VAPAM HL treatment. Treatment can be made in the fall or spring prior to planting. Trees should not be planted into the replant site for at least 21 days after treatment. Do not harvest fruit within 1 year of application.

BROADCAST TREATMENT

VAPAM HL may be injected into a sprinkler system to treat the entire replant site. VAPAM HL should be applied in a minimum of 1 acre inch of water. VAPAM HL should be applied during the middle of an irrigation set. Refer to USE PRECAUTIONS FOR IRRIGATION SYSTEMS and USE PRECAUTIONS FOR SPRINKLER IRRIGATION.

ROW TREATMENT

VAPAM HL may be used to treat just the future tree row. After establishing the position of the tree rows, apply VAPAM HL to an 8-foot strip using a weed sprayer during sprinkler irrigation. The treated strip represents a 4-foot treated band on either side of the tree replant sites. Apply ¾ to 1 inch of water during the irrigation set. Two methods may be used to apply the VAPAM HL to the future tree row:

a. Calibrate a sprayer to apply 56-75 gallons per acre. Mix the VAPAM HL 50/50 with water and make two applications during the sprinkler irrigation set. Make the first application during the second quarter of the irrigation set (and apply a second application during the third quarter of the irrigation set). Water should run a minimum of 30 minutes after VAPAM HL application.

   EXAMPLE: 75 gpa VAPAM HL + 4 hour Sprinkler Irrigation
   Apply 37.5 gallons VAPAM HL + 3.75 gallons water solution to 1 sprayed acre during hour 2 and again during hour 3 of the irrigation set.

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b. Calibrate a sprayer to apply 150 gallons per acre. Mix the VAPAM HL 50/50 with water. Apply during the middle of an irrigation set. Water should run a minimum of 30 minutes after the VAPAM HL application.

EXAMPLE: 75 gpa VAPAM HL + 4 hour Sprinkler Irrigation:
Apply 75 gallons VAPAM HL + 75 gallons water solution during hours 2-3 of the irrigation set.

All applicable directions, restrictions and precautions on the EPA-registered label are to be followed.

This labeling must be in the possession of the user at the time of pesticide application.

CONDITIONS OF SALE
AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of AMVAC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold AMVAC and Seller harmless for any claims relating to such factors.

AMVAC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or AMVAC and Buyer and User assume the risk of any such use. AMVAC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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AMVAC and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty of liability, which may not be modified except by written agreement signed by a duly authorized representative of AMVAC.

VAPAM® HL is a trademark of AMVAC Chemical Corporation.

24 (c) Registrant:

AMVAC CHEMICAL CORORATION
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Los Angeles, CA 90023